

Jungle Rhythms



Winter 2018





Prime Minister of India made a strong pitch on climate change at the Global Economic Forum in Davos on 23rd January Tuesday, calling it the "first challenge" facing civilization. "*Glaciers are melting, Arctic ice caps are retreating, Davos is getting the worst snowfall since 20years*", he said.

This is time we as a nation collectively execute our fundamental duty of protecting our forests, wildlife and natural heritage and slowly creep towards a more greener world. Economic prosperity and power cannot be attained until we secure a healthy life for our next generations who will continue our legacy. Natural eco-balance and harmony can only be the catalysts to such a society.

Jungle Rhythms Winter Issue continues to provide wildlife conservation awareness free to the civilians by bringing in the key results of field researchers who working hard out in the wild and help people feel inspired, motivated and encourage more hands to get involved, contribute and act collaboratively where results can help the wild.

Nirmalya Chakraborty
Editor- Jungle Rhythms

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“Simlipal”
Satyesh Naik

One of the first thing that strikes our mind when we talk of Similipal is obviously ‘melanistic tigers’.



Between 2011-2015, I had the privilege of working for the forest department on preparation of the avifauna checklist for Similipal, the famed tigerland of Odisha which epitomizes its rich flora and fauna. The field experience was once in a lifetime opportunity for me and acted as a great learning laboratory. I was simply awed by the beauty of this place which is a huge patch of 2750 sq km of Sal forest in the north- eastern Odisha. Dotted with mist filled valleys like Nawana & Dhudruchampa, cloud laden hills of Meghasani & Khairiburu, gigantic waterfalls like Barheipani & Joranda, Similipal has long been the symbolic capital of Odisha's wilderness. With vast meadows like Devasthali & Barhakamuda crisscrossed with numerous life giving perennial rivers like Budhabalanga, Deo, Palpala & Salandi, this tiger reserve itself has a micro climate of its own.

Similipal was the erstwhile hunting grounds of kings of Mayurbhanj as it harbored good number of herbivores population. Since there was ample prey, there was plentiful number of predators also. In the early part of 20th century, forests were leased out to the timber logging firms which earned huge bounty in return of supplying sleepers to railways in India and England. This mass devastation of the Sal forests continued till mid 70s and then controlled destruction continued till early 90s in form of state owned forest development corporation. Thankfully logging days are over now.

Resurrection of Similipal started in 1973 with the declaration of Project Tiger. Similipal was one of the first nine tiger reserves to have been declared as part of Project Tiger, thanks to the visionaries who rightfully felt that its habitat was an apt breeding ground for the tigers. And to Simlipal's fortunes, Shri Saroj Raj Choudhury was appointed as its first Field Director. This tiger reserve owes a lot of its legacy to Saroj Raj Choudhury, fondly known as Choudhury *babu*. Roads, culverts, section offices, range offices, conservation action plans and much more were conceptualized and constructed during his tenure.

Of course, biggest gift to Similipal from Choudhury *babu* was Khairi, the hand reared wild tigress which the Field Director helped survive in captivity. Khairi brought in a lot of focus to this place and was constantly in news. Photographers, writers, reporters, documentary filmmakers and hordes of tourists often paid visit to Jashipur (a small sleepy town on northern boundary where Khairi was housed) to have a glimpse of the famed daughter of Simlipal. Scientific management clubbed with right conservation measures helped tiger numbers slowly grow in the reserve.

Choudhury *babu* helped build beat houses in key locations which mesmerizes staff today, acknowledging the fact that a visionary leader with the detailed knowledge of geography could have only thought of those strategic locations.





Some of the beat houses like Kusumbani, Bhatunia, Kulipal etc were built in obscure, unthinkable coordinates overseeing the valleys and traditional hunting footpaths, thus cutting down chances of poaching to large extent. No doubt that it still remains a challenge for any subsequent Field Director of Simlipal to surpass the legendary Saroj Raj Choudhury both in terms of thoughts and deeds.



One of the first thing that strikes our mind when we talk of Similipal is obviously 'melanistic tigers'. These forests are a bio diversity hotspot and are much beyond the melanistic tigers. Similar to Hora's theory, botanist Panigrahi was of the view, Similipal acted as a linkage between flora of North East India and Mahendragiri hills in south Odisha.



Similar to Hora's theory, botanist Panigrahi was of the view, Similipal acted as a linkage between flora of North East India and Mahendragiri hills in south Odisha. Arguably today Similipal is the best place in India if one has to get up-close with Pale-capped Pigeons. One can see flocks of Pale-capped Pigeons in the Chahala saltlick during summers. If one is lucky, the Thick-billed Green Pigeons will also greet you over there. Some of the other rarities like Collared Falconets and Asian fairy Blue bird also figure in the checklist of birds for these forests. The list is long. Perhaps that is the reason, Similipal was one of the five places picked up by Dr. Salim Ali and S D Ripley for doing detailed field observations when the magnum opus 'Birds of India' was being prepared.

In the late summers, as one drives through the forest roads, sight of wide array of Orchids adorning the trees greet you. Similipal is one of the few places in peninsular India which is an abode to a spectacular inventory of almost 100 species of Orchids including the endemic ones like *Eria meghasaniensis* and *Tainia hookeriana*. Another classic example is a type of palm civet, *Paradoxus jorandensis* (named after Joranda waterfall) which is confined to these forests. There are many such examples related to other flora and fauna that are only found in Similipal, reinforcing the importance of this forest.





Million-dollar question that incites a lot of heated debates between conservationists & foresters and creates center & state conflicts is the numbers of tigers that Simlipal boasts of. This has lot to do with some erratic number that was formulated by the department aided with inputs of senior researchers in past based on pugmark counting. The magical number was 101 for Simlipal which is beyond one's comprehension. That number for me never existed and looking at the current state of affairs and the existing habitat, that number will never be a reality in future also. That's just unthinkable and we need to thwart that unwanted baggage. A lot of so called well-wishers of this reserve every now and then compare the current tiger numbers with that pseudo number of 101 and hence try to nullify whatever efforts Simlipal staff have put in recent years when it comes to conservation.



There was a time starting late 90s till 2010 when real efforts were not put in on ground when it came to conservation, blame it to multiple reasons starting from weak leadership to lack of visioning to lack of govt support & focus. It dipped into a new low during the Maoists attacks of 2009 which just broke the backbone of Similipal. Range offices blown, bridges burnt, log houses razed to ground, staff and tourists beaten and the saga of devastation was endless. It was a complete system failure. Maoists with the help of local villagers had completely seized the tiger reserve. The fear grappled everyone despite efforts by the district authorities. Some of the staff gained courage and joined back duty in the core after 6-8 months of the Maoist mayhem. Restoration started slowly. Thankfully things have revived starting relocation of Jenabil village in 2010.



A lot of effort was put in to thwart the menace of *Akhand Shikaar*, a unique annual poaching ritual where in hundreds of tribals (villagers from neighboring villages) would enter tiger reserve and hunt whatever would come their way. I can't think of any tiger reserve in India which faces this sort of peril. Due to rigorous patrolling by the staff added with lot of arrests that were made between 2012-15, poaching and illegal timber felling has slowly faded. Today *Akhand Shikaar* is a thing of past, though stray poaching incidents keep on happening owing to hundreds of kilometers of porous boundary and the ever hungry, bush meat loving, thousands of tribal populations living both inside and adjoining the tiger reserve. Overall Simlipal is well on its way to the stage of complete recovery.

All Photographs ©Satyesh Naik



Recent tiger number as per the Odisha forest wing's census is 26. This is contradictory to the lesser number shown by NTCA for Similipal and has been a bone of contention. I would tentatively agree to the state govt's census numbers. Some parts of the forests were not covered during the census carried out by NTCA and the report was prepared hastily. Having said that, I would be very cautious over here not to over endorse and not get overboard happy with the state's figures.



There are many reasons for this sense of caution. Firstly, Similipal has a potential to support a greater tiger number beyond 26. The day the count reaches somewhere around 50, we should celebrate. Secondly, the current big cat population is confined to southern half of Similipal, i.e. ranges of Barhakamuda and Jenabil, which is dangerously indicating that northern half is not secured tight and the historical problem of human disturbance in those ranges like Chahala, Pithabata and Nawana continues. That's a priority region for the administration which must be taken up on an urgent basis. Thirdly, the buffer Divisions like Karanjia and Rairangpur are reporting almost nil number of tiger. That's a sorry state. Historically abundant tiger kills were reported from these places. Only when we see tigers reviving in these areas, wildlifers will have some reason to cheer.





The Protection Assistants of Nawana



Thankfully, the corridor connecting Simlipal with adjoining Hadagarh sanctuary is being actively used by transit tigers and we are getting tigers back in Hadagarh which is a good sign. It would be wonderful to see the same result in the Bangriposi corridor in future which can be used by big cats to go north into Rairangpur and further into Jharkhand. Recently huge funding which amounts to Rs.64 crores has been sanctioned by state govt for development of Simlipal. We can just hope that the fund is rightly used and a good proportion is allocated for protection and development of corridors connecting Simlipal with adjoining reserves. One of the key tasks of the current tiger reserve management will be to relocate the last remaining village in core area, Bakua. If that can be done within next year, it will be a huge boost to the conservation scenario as then, it will be a complete inviolate core area of the Tiger Reserve. That will also solve the long pending issue of declaration of Simlipal as a National Park.



I am pretty hopeful that Simlipal will regain its past glory very soon.

Satyesh Naik is a great wildlife researcher and the author of the book "Wilderness Tales from Simlipal" written on this beautiful jungle. A great naturalist and wildlifer at heart.

All Photographs ©Satyesh Naik



*The fish I wanted to collect and study its habitat was *Aphanius dispar*, a cyprinodontid never photographed alive from India before.*

EXPEDITION - *Aphanius dispar*
HEIKO BLEHER

It was my aim for a number of years to do research in aquatic habitats of the home state of Mohandas Karamchand Gandhi (commonly known as Mahatma Gandhi), the man who led India to independence and who inspired movements for non-violence and freedom across the world. He was born in the coastal town of Porbandar and this was about the most northern known distribution of the main fish I was after in the state of Gujarat. Finally last December I was able to travel to this western state of India...

The fish I wanted to collect and study its habitat was *Aphanius dispar*, a cyprinodontid never photographed alive from India before.





I also wanted to see it as I strongly believe that since the description of *Aphanius dispar* by Rüppell in 1829 no one really did intensive research on the Indian populations. The German Eduard Peter Eduard Simon Rüppell (1794-1884) between 1821 and 1827 studied the Fische des rothen Meers (Fishes of the Red Sea) and his results were published in the *Atlas zu der Reise im nordlichen Afrika* (Atlas of Travels in northern Africa) (1826-1828). But as Rüppell never reached India during his trips, nor did he collect specimens there, I questioned myself, since I started to work on Indian fishes in the late 1970s, if the Indian *Aphanius* is really the same as the one Rüppell described from the 'Red Sea'. And I think it has been Francis Day who first wrote about the Indian *Aphanius* and classified it as *dispar*. But I am sure he did not compare the Indian species with the type material from Rüppell and since no one else really compared the Indian population with the types it remains a mystery until today. And everyone still give the Indian population the name *Aphanius dispar*...

For me it was very interesting to do more research about Rüppell's live, which already started to interest me many years ago during my African research work. Rüppell was the first to catalogue (between many other things) freshwater fishes of northern Africa and he also travelled extensively in Abyssinia (today's Ethiopia). And I went already three times collecting along his footsteps throughout this fascinating country on the Horn of Africa. I feel we had more in common than just both being born in Frankfurt am Main, Germany, and both having the drive to dedicate ones live as Naturalist and Explorer since early childhood. The main difference I found is that he was born into a rich Frankfurt bankers family and me into the family of the 'Father of water plants' Adolf Kiel, and his daughter, my mother, and Amanda Flora Hilda Bleher...

I landed after a three-day field trip with my dear friend Sujoy into the Himalayan foothills from New Delhi in Mumbai. My landing was early in the morning and it was sunny and very hot (versus the cold days and nights in the north...). My friend and well-known ornamental fish exporter from Mumbai, Mehmood with his son Tanveer picked me up and we went to his house into the traffic jammed former Bombay. Together with Manila, Moscow, Bangkok and Mexico City, Jakarta and Los Angeles, Mumbai must have the most chaotic traffic jam anywhere

...

Three hours later I got to take a shower at Mehmood's home, prepared my equipment for the trip and waited for Garodia's driver. Garodia had invited me for a power-point presentation during his Aquarium Festival on December 23rd, and in compensation provided a car for my field trip up north to Gujarat. Mehmood and Tanveer came along, which was very nice, especially as the driver spoke no English, and hardly any Hindi. But it was not until in the afternoon that we finally got out of Mumbai, which gave me only two days and no alternative than drive most of the two nights, which was a nightmare...

The road from Mumbai to Gujarat goes straight to the north and is a beautiful four-lane highway in each direction, but suddenly we saw cars and trucks coming towards us! I asked is this not a toll-way like everywhere else in the world that each one stays in his lane and direction? Well surprisingly, I became the answer *"yes, but everyone does what he wants and drives where he wants, as long as the police does not bother"*, and naturally they never, or hardly ever, do bother ... It became much worse at night, continuously between endless rows of Tata-trucks came suddenly cars from the opposite direction towards us, and not only one, hundreds. I was happy I did not have to do this 'dead-row' driving and to do this dangerous manoeuvre continuously to avoid an accident ...

It was after two in the morning when we finally reached the outskirts of the village Khambhat in the southern Gujarat.



Until a few years ago from this gulf area *Apanhius* have been recorded, that is why I wanted to start from this alluvial plain at the north end of the Gulf of Khambhat. In spite being so late (or early morning) Mehmood's friend, who lives here and produces beautiful stones for aquarium and other decoration purpose, guides us to a vegetarian Inn which prepared different and very delicious typical Gujarat-dishes for us at three in the morning...

Cambay, as it was formerly called, has a long history and already in 1293 Marco Polo, who named it Cambeat, wrote about this, at that time flourishing city, as the seat of extensive trade and celebrated it for the manufactures of chintz, silk and gold artefacts. It has some beautiful houses, although none renovated, dating back to the British times dating back to 1802.

We stayed in an old hotel, from the late 19th Century with an elevator and a iron door. At six in the morning, we left to have a real European breakfast at Mehmood's friends house and from there we drove to the costal area and it was terrible.

The entire region silted and covered in most places with thick layers of salt. The little water holes I found contained pure saltwater without fish-live in it, only shrimps.



A terrible wind was blowing and temperatures way below 10°C. I felt so damn cold. Everywhere I fished was wasted time, as far I could walk for kilometres towards the Gulf shore. The fisherman I crossed had sacks full with shrimps, not a single fish.

No wonder Khambhat is not flourishing any more, with the groundwater being very salty and the entire coastline silted up, so the once second largest Indian shipping port is long history and all enterprises moved away. And the *Aphanius* must have here become extinct.

After several hours lost we went back into Cambay and we asked many older fishermen for an untouched freshwater area, as almost all creeks and rivers had dried up, there was none anymore in the Khambhat area. **Finally**, we found one person, which in Gujarati explained (very difficult as hardly anyone of us understood) that the only place is in the Bird Sanctuary, an protected area with a big natural lake. I immediately asked the driver to follow the direction he gave us, which was about 200 km northeast.





In the early afternoon we reached the Tarrapur Pariej Bird Sanctuary. The lake in it looked promising, full of aquatic vegetation throughout its kilometre long extension and it seemed that its greatest depth was only about four metres which makes it possible for submerse plants to grow if the water is clear as here. There were two small boats but I walked into the water and had right away a beautiful golden shiny *Rasbora daniconius* in my net. I am still amazed why this beautiful, peaceful and community aquarium fish, is so rare to be seen in the hobby. The immense quantity of *Eichhornia crassipes*, the *Typha* species, *Nelumbia lotus*, the Lotus plants as well as many water lilies, made the walk in the lake very difficult. There were also *Limnophila indica*, and a *Myriophyllum* species as well as *Ottelia alismoides* growing in this underwater garden.

... and with all of this I knew there must be different fish species here and searched with my special designed folding net everywhere.



Maybe the most fascinating species was this *Badis* I found spawning deep in the long roots of the *Eichhornia*. The male was in full (breeding) colour, striking blue in the dorsal, anal and pelvic fins, a bright red seam along its dorsal, in the tail base and rear part of the anal fin. It was an eye-site, rainbow colours to see...





But also in these gigantic *Eichhornia* roots was the terrible predator: *Nandus nandus*, together with its youngsters, simply as they find in such 'protected' habitats so many baby fishes they can feed on, and not only these, but also aquatic and terrestrial insects. In the more open water, swimming between the *Typha* steems and *Myriophyllum species* I saw hundreds of *Pseudambassis ranga* in the brightest red colour as I had never seen it before. This must be one of the most beautiful freshwater fishes India has, and specially the population this lake. And directly on the surface a small groups (of maximum 5) *Aplocheilus*, possibly *A. blockii* splashing around in this bright sunlight.



I walked nearly breast-deep between the water lilies and lotus plants along the edges of this nice giant aquarium-like lake and at an vegetation-island, where plenty of *Eichhornia* had accumulated I got a very interesting *Mastacembelus*. It seems to be a small species, beige base colour with 3-4 rows of almost equal sized brown dots along its sides and tiny rows of spots in its large fin. Very pretty, and extreme handsome if kept in aquaria together with such floating plants and sand.



The edges of the lake were covered with thousands of this *Typha* plant and almost impossible to penetrate. I tried to work my way into it some parts and made one scoop after the next using my total strength when I finally had a beautiful, dark spotted *Channa punctata* in the net. It was a typical *Channa* habitat. I have seen them with their babies swimming around in such identical biotopes.



This was a fish paradise, untouched, although a small canoe full of young guys tried to follow me, so some people come here. On my way out, between the floating water lilies I saw several *Colisa cf. lalia* (recently placed into *Trichogaster*) with bright blood-red edged anal fins, which also Tanveer, who had come along caught.



Pseudambassis ranga var., an extreme colourful variant was also found at the Tarrapur Pariej Bird Sanctuary.

I photographed, catalogued all species and while I was doing this a man showed up with a camera in his hand and a 600 mm lens, looking at me very strangely and said “You must be Heiko Bleher, the world famous fish expert and explorer Heiko Bleher, I have seen your pictures and fantastic work at Facebook, I am your great fan and Facebook-friend...” (how can I remember that having about 5000 on Facebook alone...). Anyhow it was nice because Arpit Deomurari is a well-known bird photographer and I told him why I am in Gujarat. I also explained what my main purpose was, to trace the Indian *Aphanius*, but so far without luck. And he said that while doing birding he had seen fishes, which could be what I am looking for in three places, but far from here. I said I do not mind, show me where, and he said I guide you there.

Before we left and followed his car, I took the parameters in the lake Pariej: pH 7.38, conductivity 333 $\mu\text{S}/\text{cm}$ and temperature at 12:00 was 21.7°C.

This time, we drove for about one hour and the place he stopped was, as I found out later, actually connected to the lake area. The species and water parameters were identical, I only found one addition fish, a *Puntius* species, like *P. ticto* (now in *Pethia*).

This was, as the lake area, not the habitat of *Aphanius*, they need at least connection to or some brackish water influence and there was none in those areas. After I explained this to Arpit, he said than he knows where I can find such habitat. It is another 200 km north-west and that is costal area and there is brackish water. Well it was evening when we finally reached the coastal place called Pimpli, and the landlocked bodies of brackish water I found where all destroyed, polluted and the only fishes in it where survivors, such as *Glossogobius giuris*, and the *Puntius* species, the *ticto*-type found almost everywhere, also as here, in brackish water. This was very disappointing. In addition the other areas of Gujarat I researched the following day, such as the hydroelectric power plant and dam, contained only introduced Tilapine species and nothing else.





Arpit Deomurari © 2013 - www.AvianDiversity.com

Finally I had to leave back to Mumbai for my seminars and I called Arpit Demourari again and he said that they must have become extinct, as he has seen them years ago in all these areas he had indicated. He said also that he was able to look through his files and found pictures he took also years ago, but further north in Kutch. And not knowing actually *Aphanius*, he e-mailed me the pictures and it was really that cyprinodontid I was after. He had unknowingly photographed thousands of them dying at the very end of the dry season, before the monsoon started, some amazing photos also of males and females. Therefore I can show them and if one looks closely and compares them with the Mediterranean and 'Red Sea' types of *Aphanius dispar*, the Indian one has morphological very little in common with the types



UNTAMED CHITWAN
Arpita Dutta

...it was the arrival of the KING. Almost 16ft male King Cobra... 3.5 ft away from me ...it raised its hood almost 2-3 ft ... Eye to eye contact with that lovely hypnotic... A very majestic creature...



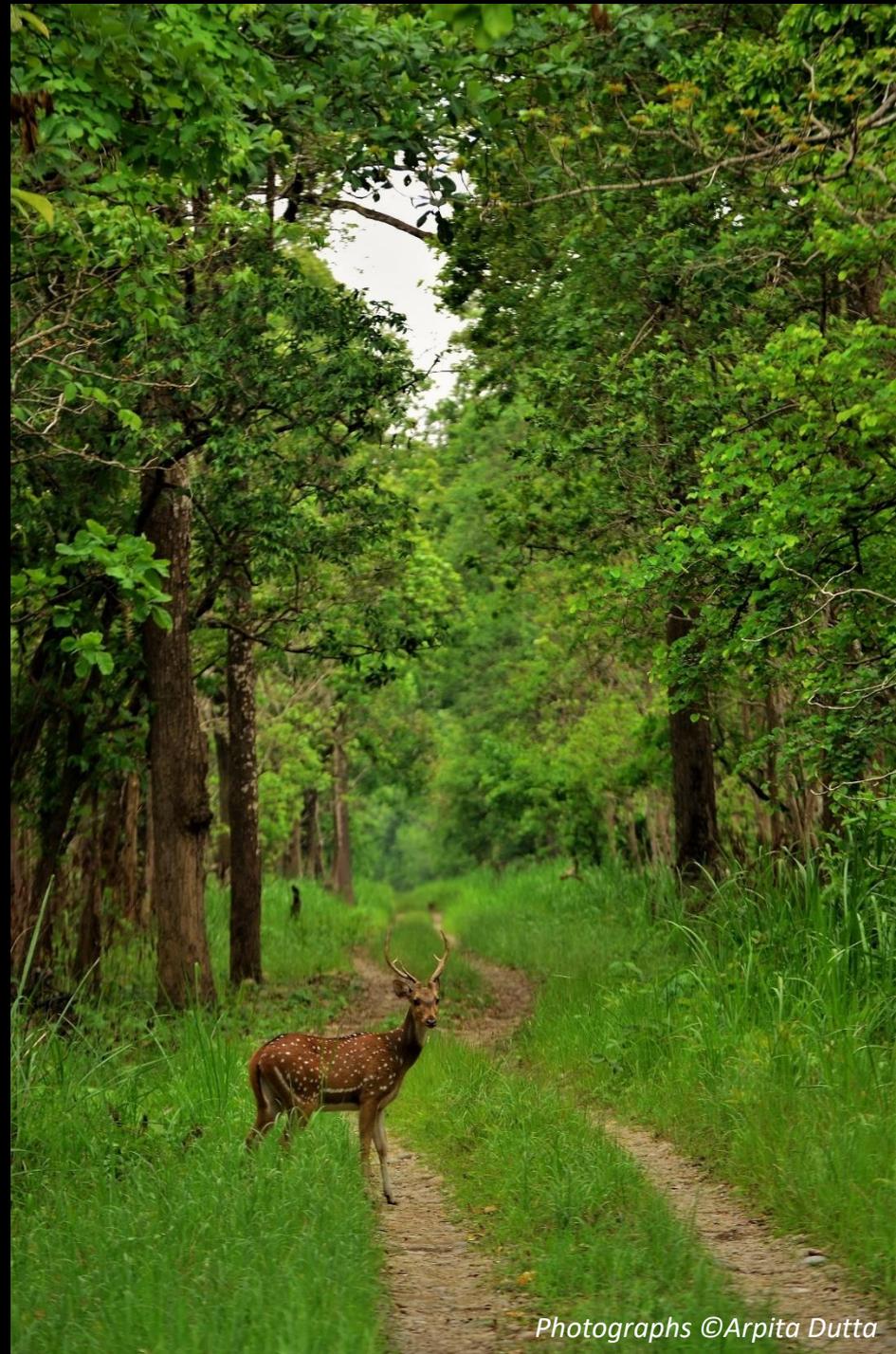
Nepal is a small country wedged between two huge landmass India & China. Compared to its size the land is rich in biodiversity & wildlife. Beautifully covered with mountains and specially Everest is like the Kohinoor in the crown of mountains. There are 12 national parks, 6 conservation areas , many Ramsar sites and wildlife reserves. Chitwan is the 1st declared national park in Nepal. It means - "The heart of jungle"

Chitwan is a valley between two mountains - Churiya hill & Mahabharat Range. The snow capped mountain peaks behind Mahabharat range creates a spectacular view. Different types of vegetation & the network of rivers make it a wonderful habitat which sustain rich biodiversity. The show stoppers in the park are the greater One-horned Rhino & Gharial. It is a birding paradise where more than 630 species of residential birds are found. Diversity of reptiles, amphibians, butterflies makes the park very special. Apart from wildlife Chitwan is a land of the Tharu tribe who are living here since few hundreds of year.

Chitwan core zone which is around 932sqkm is protected & patrolled by the army with strict vigilance. The buffer zone is 750sqkm, known as 'Community Forest' is as good as core area due to local awareness. As a result it's been almost 3 & half years there is almost no poaching. The rivers – Narayani, Rapti & Rhiu & Ox-bow lakes inside park holds rich life & also to quench the thirst of both wildlife and tribes. Chitwan portray a wonderful saga of human-animal co-existence. I have seen small kids taking bath in the same river where there are muggers on the opposite bank. Gharials & man are in a joint venture of fishing. Tharus & Rhinos both depends on the grassland too.

Tribes are allowed to collect forest products only 3 days in a year. Locals are hired by the army & forest department to manage the grassland near the tracks, to clean the waterholes & remove weeds etc. The revenue which comes from the community forest through vehicle safaris, walking safaris & elephant safaris goes to the community fund for development. In this way they get more attached with the forest. There are many incidents happened that before army could come local people got into the forest to catch the poachers by means of cycle, on foot or boat. They care so they do. But yes, sometimes the forest gets over exploited by fishing specially. Gharials, muggers, turtles, birds all depend on the river system as well as fishes, shrimps, water insects etc. Gharials get entangle in the fishing net sometimes, turtles get caught...

Army & forest dept. has set many rules. People are not allowed to collect stones from the river bed to construct roads without permission, fishing is not allowed during the monsoon time, one cannot cut down trees or burn grassland without authority. if anyone breaks rules they are imprisoned for uncertain time. On other hand, people too get killed by rhinos and elephants when they go inside the core or in the buffer area to collect grass & fire wood. It's difficult to restrict the tribes to keep away from forest. These tribes don't have much alternative livelihood & they are living as is from generations. Young generation is smart & shows interest in guiding, awareness program & sharing information. They are developing homestayes too. A stable relationship is growing strong day by day between the forest & human.





Photographs ©Arpita Dutta

Luckily I got posted at Chitwan on 16th Feb 2016. The day I was landing at Kathmandu from Delhi, I could clearly feel the magnetic power of the Himalayas. When I reached Chitwan, I was awestruck by its beauty. All the way, it was wide expanse of yellow fields of mustard till the horizon with lush green surroundings.

Opportunity to get inside the park everyday is a blessing. Knowing the animals and learning their behaviour itself is quite an experience. Specially walking through the core zone is thrilling every day. Imagine walking on the same trail where Rhinos, elephants, tigers, leopards, sloth bears and pythons stroll around & actually you do come across them. There is no shield of security, except trusting your senses. Listening to the jungle is like disconnecting yourself with the outer world.



Photographs ©Arpita Dutta

Imagine racing with turtles, hiding and watching mother rhino & calf relaxing in waterhole, suddenly see a cicada coming out of its nymph state, cordyceps fungus on a wasp, spore dispersal of a huge bracket fungus like blowing dust, stinkhorn fungus spreading its skirt, spot camouflaging pythons, birds, a herd of 200 spotted deer run together, hog deer springing in the grassland like land dolphins etc... it's a totally different world.



Photographs ©Arpita Dutta

Along Rapti, brings you out from the claustrophobic life to a silence paradise. Most of the time you cross half submerged rhinos which keep looking at you until the boat moves away. The water of Rapti is so clear & the can see everything in the river bed even gharials underwater. The sunset at the confluence of Rapti & Narayani is magical.



Photographs ©Arpita Dutta

The forest is so dense that hardly there is visibility after 3-4meters. So imagine you might have stopped to listen to the jungle...and a rhino is standing still paralleled to the vehicle inside or a python beside the road in the dead leaves and you realize later. Sudden encounters happen most of the time which makes life more thrilling.



I clearly remember, it was March 23, 2017. There is a place called Devi taal in the western side of the park, where we decided to have breakfast. The habitat is composed of grasslands, sal trees and wetlands. It was around 8:45am. Just before reaching the spot, Suman suddenly spotted a huge python on the safari tracks, beside the road. It was great excitement and I got down to get a closer look from safe distance. That was a gravid female. Lying in peace.....

Then at Devi taal, we spotted a mother & baby rhino at the wetland. While watching them we had our hefty breakfast. I had to mark my territory there before leaving the place...so I went behind the bush. The floor was covered with dried leaves. Suddenly I heard a sound. Thought it would likely be a small animal, like a wild pig...so I paused for a while & tried to see, peering deep into the grass... but nothing!! My eyes went down in front of a log... Saw a huge head approaching towards me. For a fraction of second I thought it was a python..... Our second python on same day.. but ...it was not. The KING had come. Almost 16ft male King Cobra... 3.5 ft away from me ...it raised its hood almost 2-3 ft ... Eye to eye contact with that lovely hypnotic looks... Time had frozen then for me. I called Suman. I didn't move at all... it was right there...until Suman came running... He saw him as the King vanished silently into its own wild kingdom.



Talking about the mascot of Chitwan, there is one male rhino around 35-40 years of age who became my favorite. Often we would meet. He was huge. Lots of fight marks were all over the body. Cut marks on the ears and teeth eroded...few teeth missing. He would never leave his territory. Whenever the big vehicle stops, it would turn and grant, come up few steps close to the vehicle, to prove that he is strong, big and master of the land. As soon as the vehicle would cross him...he would turn back and run inside the grasses, scared. He is amazing to watch, and read his gestures & anticipate his next move.



Photographs ©Arpita Dutta

Chitwan has more tigers than probably any other popular tiger reserves but chance of spotting it is very slim due to the lush habitat. Two of my sightings were pretty good, thus very memorable. A less travelled track (avoided by most) I once entered to spot the hooded Pitta that had flown there. It was drizzling. Unexpectedly heard spotted deer giving distress alarm call from nearby. We moved ahead I saw the deer facing on our left and kept calling loud ignoring our presence. Oh!! There was the tiger...I could see the stripes in between the tall trees as it slowly vanished off like a dream, like a phantom of the forest.



Photographs ©Arpita Dutta

Life moves on.... Rufous woodpecker feeding on the Crematogaster ants, and again another had built a nest inside Crematogaster's arboreal nest. Watching the birds availing a free ride on rhino back, mugger put its tail up & defecating, rhino submerged and farting, so bubbles come out from back, Great hornbill courting display, beautiful red-headed trogon swinging on the vines, long-tailed broadbill building nest, ruddy-shell duck communicating with each other, goosander catching big fish tossing and swallowing, changeable hawk eagle feeding on ruddy-shell duck, greater racket-tailed drongo mimicking calls, white-rumped shama drinking water collected in the fungus, osprey on hunt, thousands of small pratincole making different shapes in flight, grey-headed fish eagle chicks peeping out from the nest, crested serpent eagle waiting patiently for prey to come near, oriental honey buzzard feeding on bee-hive, common cranes flying over, thrushes kind of keep them busy....and goes on.





Photographs ©Arpita Dutta

The everyday sky sketches different pictures in the clouds. The silverline of the sun from behind the clouds indulge you into a deep thought. Imagine you are lying down in total darkness with no light pollution, and the wide expanse of the Milkyway as if drops on you... it stops your heartbeat for a moment. The stars sparkle like diamonds & the reflection on the water dazzles where in between you see thousands of fireflies...at the same time you hear the flowing water, the fog calls and also the occasional distress alarm call of the hog deer which keeps you awake in excitement of the predator nearby



Photographs ©Arpita Dutta

Witnessing all these amaze me every time and a deep conviction to their protection. The feeling how insignificant we, humans are in this complex processes of nature, so intricately bounded and so beautiful. Their capability of adaptation, communication and their sophisticated way of understanding is way too far than ours. Still we don't change our perspective. We don't realize while accomplishing our demands, we are making this planet inhabitable for us & other creatures.

Imagine when we enter the park outside the gate as well as inside we see plastic wrappers, bottles, food, cigarette buds, tobacco packets, etc everywhere. Why do we need to behave like fools by shouting at the animals, creating nuisance Conservation is not just being involved in securing wildlife through field work, captive breeding programs, it is also being aware of the basics. Jungle has its own language & rules, listen & understand them. Once you start giving respect to nature and its creature, mother nature will never leave your side.



Photographs ©Nirmalya Chakraborty



Elephants are **Beautiful** People

Nirmalya Chakraborty

Elephants have always fascinated me due to their complex family structure, finer sense of intelligence and attributes of great strength. I have been studying and following them in many major national parks of India. This article is a result of utmost love I carry for these gentle souls.

In terms of cognitive processing, not only do elephants have the largest absolute brain size among land mammals, they also have the largest temporal lobe relative to body size of any animal, including humans. The temporal lobe is that portion of the cerebral cortex devoted to communication, language, spatial memory, and cognition. In fact, elephant brains contain as many cortical neurons as human brains and have larger pyramidal neurons (specialized neurons thought to play a key role in cognitive functions) than do humans, suggesting that elephants might have learning and memory skills superior to ours.



THEY HAVE EXTRAORDINARY MEMORIES

Elephants can remember routes to watering holes over incredibly long stretches of time and space. This is necessary for elephants that live in the desert where water is scarce. Research also shows that elephants often form close bonds with companions, and can recognize them even after long periods of separation.

Dr. Shermin de Silva, now director of the Uda Walawe Elephant Research Project in Sri Lanka, said in 2011 that “Elephants are able to track one another over large distances by calling to each other and using their sense of smell ... Research work shows that they are able to recognize their friends and renew these bonds even after being apart for a long time.

Elephants capacity for memory and emotions is remarkable and is due to the well-developed hippocampus. This is also the area responsible for emotional flashbacks and is the reason that elephants experience Post-Traumatic Stress Disorder. The insight and intelligence of the elephant is particularly note-worthy in their ability to mourn their dead. This behaviour has only previously been noted in humans. In fact, recently deceased elephants will receive a burial ceremony, while those who are already reduced to a skeleton are still paid respect by passing herds. The burial ceremony is marked by deep rumblings while the dead body is touched and caressed by the herd members trunks.

Intelligence is also manifested in the elephant's ability to self-medicate. In Africa, when a pregnant mother is due to give birth, she will chew on the leaves of the tree from the Boraginaceae family to induce labour.

Another ability that indicates superior intellect is elephants ability to play and display a sense of humour. Games include throwing a stick at a certain object, passing an object from one animal to another, or squirting water out of the trunk in a fountain.



THEY CAN IDENTIFY LANGUAGES

Researchers at the University of Sussex in Brighton, UK have discovered that African elephants can distinguish differences in human gender, age, and ethnicity purely by the sound of someone's voice. If the voice belongs to a person who is more likely to pose a threat, the elephants switch into defensive mode.



To test this, researchers found two Kenyan men from different ethnic groups, the Maasai and the Kamba. The Maasai have a history of killing wild elephants, while the Kamba do not. The researchers recorded the two men saying, "Look, look over there, a group of elephants is coming," in their different languages, and played these recordings to elephant family groups at Amboseli National Park in Kenya. When the elephants heard the Maasai, they showed signs of fear, huddling together and moving away from the voice. But the same phrase spoken by a Kamba man evoked no reaction from the elephants. "The ability to distinguish between Maasai and Kamba men delivering the same phrase in their own language suggests that elephants can discriminate between different languages," said the study's co-author Graeme Shannon, a visiting fellow in psychology at the University of Sussex.

What's more, the same recordings made by women and children of either tribe left the elephants unfazed, suggesting they can not only distinguish between ethnic groups, but between age and gender as well, knowing that men are the most likely to pose a threat, especially Maasai men.



Charging Elephants! – When and Why?



Elephants are animals with emotions just like humans. Here are a **few things to keep in mind** when coming into contact with wild elephants:

- Elephants are not naturally aggressive. They do not want to harm you. Instead they just want to be left in peace.
- Do not invade their personal space. Give them approximately 30-40 metres of space. Just like humans, they feel uncomfortable and can feel threatened when you invade their personal space. The radius of personal space depends on person to person as we humans.
- Always give the elephant the right of way. Always allow them to have an open route and do not corner them.
- Always remain in your vehicle. and do not reverse your engine or try to drive past them at full speed. This will only aggravate the animal and increase the likelihood of a full charge.
- Learn to recognise their threat signs. (e.g. ears spread; head shaking, nodding, jerking; trunk swishing; slapping ears against their body; throwing grass, stones or twigs). At the first threat sign move back and give them space.
- Mothers with calves will get very upset if you are between them, so always watch out for small calves and allow them and the mother to get together.
- Elephants weigh 15,000 lbs, more than 5 times that of a Honda Civic! Still, experts advise never to run from an already charging elephant if you are on foot. Hold your ground. Raise your arms and yell loudly to let them know you aren't afraid.



Photographs ©Nirmalya Chakraborty

Mock Charge

- Most charges are mock charges. These are done to make a threat. The elephant is letting you know that you are making them uncomfortable. "Back off."
- An elephant will mock charge to test you, seeing if you are aggressive or something that should not be considered a threat.
- Sometimes an elephant may be unsure whether to charge or not. When this happens, they will twitch their trunk and swing it from side to side.
- Biologist Dr. George Schallar discovered that elephants exhibit "displacement activities." Dr. Schallar found that the more elephants exhibited "displacement activities, the more likely the animal was reacting out of fear and was less likely to charge.
- **Key Signs: Ears will be fanned out. Trunk may be swinging from side to side.**

Real Charge

- During a real charge, the elephant is charging at you in an attempt to defend itself. This is a very dangerous situation to be in. An elephant can run at speeds estimated at 35-40kmph! That's 25mph!
- **Key Signs: Ears will be pinned back flat against the elephants head and the trunk will be curled inward. With these signs, a real charge is imminent.**



During my study at Kaziranga, Bandipur-Nagarhole and Corbett ecosystems, I have experienced many close encounters. Thankfully all were mock charges. Unprovoked and sudden with no or little response time. This article has those record shots.

Elephants are really beautiful people. My respect would always remain for them. It is so sad that elephants in India still die on railways tracks in absence of proper caution and speed regulation. Herds of Bengal still lose their traditional migration paths and land into conflict due to habitat fragmentation.

Further Reading:

<http://mentalfloss.com/article/55640/7-behaviors-prove-elephants-are-incredibly-smart>

<http://www.elephantsforever.co.za/elephant-intelligence.html>

<https://storify.com/safaririch/what-to-do-when-an-elephant-charges-at-you>

<https://www.news24.com/Travel/Guides/Bush/Surviving-a-charging-elephant-20140113>

<https://www.wikihow.com/Survive-a-Charging-Elephant>



Spreading **CONSERVATION**
Rathin Das

Environmental protection is a fundamental duty of every citizen of this country under Article 51-A(g) of our Constitution and it reads as - "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."



Name: Rathindra Nath Das

Current Age: 41years.

Mission: Spreading Wildlife Conservation Awareness and Consciousness

Action Plan: Spread the word of conservation in simple way to all young and mature minds, He spreads his message to various village schools as he travels far and wide in his bike along with his life partner. His conviction is conservation cannot be done in one day. The word should spread and every person must take the initiative to understand and spread as a part of ones fundamental duty.

Environmental protection is a fundamental duty of every citizen of this country under Article 51-A(g) of our Constitution and it reads as - "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures."

Language of Communication: Hindi, Bengali and basic English



How it all Started: The grief of dying turtle as it was sold in the local market in Bengal for meat. Then slowly working along with West Bengal Wildlife Crime Wing, Forest Department, PETA to work as decoy customer during raids and help confiscate wildlife and release them. Then he decided to have a more meaning in life. A life with more concrete valuable cause.

Expedition #1 – ALL INDIA (Main Land) - Message: “SAVE FOREST SAVE WILDLIFE” - 133 DAYS (27138 km) - 2268 schools visited en-route spreading the awareness campaign.



Expedition #2 – WEST BENGAL & ASSAM – Message: “Rhino horn is not medicine” - 15 days (3000 km) - 67 schools visited en-route spreading the awareness campaign.

Expedition #3 - ALL INDIA (Main Land – 10 States) - Message: “We need to save our Wildlife” - 26 days - 6000 km - 197 schools visited en-route spreading the awareness campaign.

Key Facts: He faced the tribals of North-East who lives harmoniously in the deep forests of the hills. Those places where they co-exist with wildlife and still maintain hunting ethics - not hunting pregnant animals or a mother with baby. Rathin was able to put in the seed of conservation in the teachers of the small little schools of the hamlets who are now committed to cultivate the same feeling in all the budding minds they teach.



Key Facts: A 7year old boy from Mount Abu who used to occasionally hunt rabbits in snares and eat, was also deeply moved by Rathin’s views. He pledged never to hunt and also educate all his friends and spread the message of conservation strongly.



Key Facts: Rathin met Alex Miteff in Munnar who is a Australian citizen from Sydney but came to India with his full income to explore the wilderness of our country which has almost all habitats and rich biodiversity. He used to survive on fruits like custard apple and would secure all the seeds safely so that when he would ride along the forest roads, he would randomly drop it. His gut feeling, some seeds would germinate and grow into fruit trees in these wild forests and then feed many wildlife – animals, birds and many insects.



Key Facts: In Rajasthan and Kutch (Gujarat), Rathin has seen how the local people have wildlife so much deeply engraved in their culture – music, dances, house wall paintings and even where they keep their vegetable so that wildlife like chinkara or black buck or peacocks may come and feed on them. Spread words of conservation was easy there.



Upcoming Expedition: On Global Tiger Day -29th July 2018 – He will be starting his fourth expedition to **13 countries** (India, Nepal, Bhutan, Bangladesh, Russia, China, Myanmar, Thailand, Malaysia, Cambodia, Laos, Vietnam, Indonesia) - All Tiger countries to spread the universal message of tiger conservation and how it affects the full ecosystem and environment.

If you want to connect to Rathin Das and help him for the upcoming with needed resources, do contact him willingly at - 9007544691/ 8777624959

Jungle Rhythms wishes Rathindra Nath Das a great success in his committed journey – a noble cause.



SPOTLIGHTS

- Maharashtra has declared a new wildlife sanctuary in **Ghodazari** 160 sq.km for the tigers of Brahmapuri. It thus would give a boost to tiger conservation as the area is adjoining Tadoba-Andhari Tiger Reserve. After notifying it as PA, there will be drastic change in its protection status, thus a good refuge for dispersing tigers from TATR. The 160sqkm area includes 34 reserve forest compartments with 13 beats.
- According to *Bernama*, Deputy Natural Resources and Environment Minister Datuk Dr. Hamim Samuri said that according to the latest record of wildlife in Malaysia, the Rhinoceros Sondaicus, or better known as Javan Rhino, is now extinct. From the latest Malaysia wildlife list records, Javan Rhino are extinct, while four other animals, Sumatran Rhinoceros, Malayan Tiger, Sunda Pangolin and Gaur (Indian Bison) are considered critical species. The main three reason for the extinction of the Javan Rhinos are shrinking habitat and roaming area, poaching and illegal trade, and road accidents. Besides the Javan Rhino, 12 species were assessed as endangered, 14 species as vulnerable, and 33 species as near threatened.
- Tiger presence was reported in Uttarakhand last year in Askot Wildlife Sanctuary where a tiger was camera-trapped above 12,000 ft. Following which tiger was photographed in Kedarnath Wildlife Sanctuary and Tehri forest division. Similar incidences were also reported from Arunachal Pradesh. Certainly, these areas should be now covered during the tiger population estimation, WII officials say.
- A rare albino smooth clawed otter was recently photographed in the swamp tidal forests of Sundarbans Biosphere Reserve.
- The latest data from the NTCA showed that 560 **tigers** died in the past six years, 55 per cent of them of natural causes. However, sadly 20 per cent were **electrocuted** by coming into contact with power lines. This is a point for concern as farmlands still continue to use live wire to protect their fields from wild pigs and other wild animals in which nomadic tigers fall trap and die.

Dear Editor

Water is the essence of life, and is crucial to the survival of every living creature. Every available water source is utilized to fulfill human demand, but for animals in forests and wildlife areas, finding water is always a challenge. Damming of rivers/streams, and rampant groundwater extraction through bore-wells results in the drying up of natural water sources in wildlife areas.

Acute water scarcity results in weakness/ death of animals, and forces wild animals to stray into human habitation. Straying animals get killed, or get into a man-animal conflict situation, where they can damage crops or homes, or can cause human deaths.

One of the measures we propose to mitigate this situation is to install solar-powered water pumps in wildlife areas. These bring groundwater to the surface, allowing water-bodies, both natural and artificial, to be replenished automatically. This provides a reliable source of water to wildlife, even in the driest months. Solar-powered pumps are non-polluting, and can be easily maintained even in remote areas.

We solicit your support for this noble cause, and propose to start with the arid forest regions of Bandipur National Park. Later, we would like to plan this operation on a pan-India basis. We have obtained fair estimates of the cost involved to set up one pump, and it is working out to between 3.2 Lacs to 4.5 Lacs per installation. These are non-polluting, trouble-free and low-maintenance systems, and have been tested earlier in wildlife areas, and will ensure a reliable drinking water supply to animals for years.

We solicit your co-operation and your generosity in helping us fund this project - as wildlife lovers, if we come together, we can easily make this happen! Please connect with me willingly to help.

Thanks & warm regards,
Earth Brigade Foundation.
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Tel: +91-9820115730

